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REMARKS

Claims 1 and 4 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Sensaki '846 ("Senzaki"), and claim 3 stands rejected under 35 U.S.C. § 103(e) as being unpatentable over Sensaki in view of Yang et al. '647. Claim 1 is independent. This rejection is respectfully traversed for the following reasons.

Claim 1, as amended, recites, "wherein the high dielectric constant film is a hafnium oxide film or a hafnium aluminate film." In contrast, Sensaki discloses only a metal *silicate*. Indeed, Sensaki is expressly purposed for using a metal silicate (*see, e.g.,* Abstract).

New claim 21 rewrites claim 4 into independent form prior to the above amendment of claim 1. The Examiner relies on the listing of options, which includes zirconium, at col. 3, lines 54-61 of Sensaki for the metal component of the silicate dielectric film. However, claim 21 expressly requires layers having *different* metals (i.e., a high dielectric constant film formed of an oxide of a metal *other than zirconium* and a *zirconium* silicate film formed under the zirconium oxide film).

Senzaki appears to be completely silent as to forming the upper layer 14 and lower layer 14 from different materials. In fact, Sensaki appears to suggest that the upper and lower layers are formed from the same material by referencing them together throughout the specification when discussing the metal in them. Moreover, when discussing all three layers 14, 12, 14, Sensaki discloses forming them from the same material (col. 4, lines 30-32), further evidencing that Sensaki discloses that 14, 14 are from the same material.

According to an aspect of the present invention, equivalent silicon oxide thickness of the gate insulating film and leakage current density can be reduced (*see, e.g.,* page 5, line 3 – page 6, line 18).

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As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed, either expressly or inherently (noting that "inherency may not be established by probabilities or possibilities", *Scaltech Inc. v. Retec/Tetra*, 178 F.3d 1378 (Fed. Cir. 1999)), in a single prior art reference, *Akzo N.V. v. U.S. Int'l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the forgoing, it is submitted that Senzaki does not anticipate the independent claims, nor any claims dependent thereon. The Examiner is directed to MPEP § 2143.03 under the section entitled "All Claim Limitations Must Be Taught or Suggested", which sets forth the applicable standard:

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (citing *In re Royka*, 180 USPQ 580 (CCPA 1974)).

In the instant case, the pending rejections do not "establish *prima facie* obviousness of [the] claimed invention" as recited in the pending claims because the cited prior art, alone or in combination, fails the "all the claim limitations" standard required under § 103.

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as claim 1 is patentable for the reasons set forth above, it is respectfully submitted that all claims dependent thereon are also patentable. In addition, it is respectfully submitted that the dependent claims are patentable based on their own merits by adding novel and non-obvious features to the combination. Based on the foregoing, it is submitted that the pending claims are patentable over the cited prior art. Accordingly, it is respectfully requested that the rejections under 35 U.S.C. § 102/103 be withdrawn.

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**CONCLUSION**

Having fully and completely responded to the Office Action, Applicants submit that all of the claims are now in condition for allowance, an indication of which is respectfully solicited. If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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